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(71) Applicant (for all designated States except US): CIBA
SPECIALTY CHEMICALS HOLDING INC. [CH/CH]:
Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

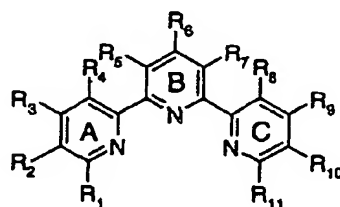
(75) Inventors/Applicants (for US only): SCHLINGLOFF,
Günther [CH/CH]: Rütiring 23, CH-4125 Riehen (CH).
WIEPRECHT, Torsten [DE/DE]: Rebacker 52, 79650
Schopfheim (DE). BACHMANN, Frank [DE/DE]:
Pochgasse 25, 79104 Freiburg (DE). DANNACHER,
Josef [CH/CH]: Peter Ochs-Strasse 33, CH-4059 Basel
(CH). DUBS, Marie-Josée [FR/FR]: 49, rue Jean-Jacques
Henner, F-68130 Wittersdorf (FR). HAZENKAMP,
Menno [NL/CI]: Obere Weid 10, CII-4125 Riehen (CI).
HEINZ, Uwe [DE/DE]: Rehwinkel 21, 66740 SaarLouis
(DE). FREY, Markus [CI/CI]: Alte Saline 12, CII-4310Rheinfelden (CH). SCHNEIDER, Albert [DE/DE]:
Bläserstrasse 68, 79576 Weil am Rhein (DE).(74) Common Representative: CIBA SPECIALTY CHEM-
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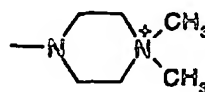
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[Continued on next page]

(54) Title: USE OF METAL COMPLEX COMPOUNDS AS OXIDATION CATALYSTS



(2)



(3)

(57) Abstract: Use of metal complex compounds of formula (1) $[L_n M_{cm} X_p]^z Y_q$ wherein Me is manganese, titanium, iron, cobalt, nickel or copper, X is a coordinating or bridging radical, n and m are each independently of the other an integer having a value of from 1 to 8, p is an integer having a value of from 0 to 32, z is the charge of the metal complex, Y is a counter-ion, q = z/(charge Y), and L is a ligand of formula (2) wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, R₁₀ and R₁₁ are each independently of the others hydrogen; unsubstituted or substituted C₁-C₁₈alkyl or aryl; cyano; halogen; nitro; -COOR₁₂ or -SO₂R₁₂ wherein R₁₂ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or aryl; -SR₁₃, -SO₂R₁₃ or -OR₁₃ wherein R₁₃ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or aryl; -NR₁₄R₁₅; -(C₁-C₆alkylene)-NR₁₄R₁₅; -N⁺R₁₄R₁₅R₁₆; -(C₁-C₆alkylene)-N⁺R₁₄R₁₅R₁₆; -N(R₁₃)-(C₁-C₆alkylene)-NR₁₄R₁₅; -N[(C₁-C₆alkylene)-NR₁₄R₁₅]₂; -N(R₁₃)-(C₁-C₆alkylene)-N⁺R₁₄R₁₅R₁₆; -N[(C₁-C₆alkylene)-N⁺R₁₄R₁₅R₁₆]₂; -N(R₁₃)-N-R₁₄R₁₅ or -N(R₁₃)-N⁺R₁₄R₁₅R₁₆, wherein R₁₃ is as defined above and R₁₄, R₁₅ and R₁₆ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or aryl, or R₁₄ and R₁₅ together with the nitrogen atom bonding them form an unsubstituted or substituted 5-, 6- or 7-membered ring which may optionally contain further heteroatoms; with the proviso that (i) at least one of the substituents R₁-R₁₁ contains a quaternized atom which is not directly bonded to one of the three pyridine A, B or C and that (ii) Y is neither I⁻ nor Cl⁻ in the case that Me is Mn(II), R₁-R₅ and R₇-R₁₁ are hydrogen and R₆ is formula (III) as catalysts for oxidation reactions, and the novel metal complex compounds of formula (1), the novel ligands of formula (2) and their starting materials.

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C11D C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 01 46368 A (JOHNSON MATTHEY PLC ;OGRODNIK VIRGINIE (GB); MURRER BARRY ANTHONY) 28 June 2001 (2001-06-28) claims 1-8 ---	1-40, 43-45
A	FR 2 677 766 A (ASULAB SA) 18 December 1992 (1992-12-18) claims 1-6 ---	1, 31, 35, 43, 44 41, 42
X	US 4 960 895 A (OHKAWA ATSUHIRO) 2 October 1990 (1990-10-02) claim 1; table 1 ---	41
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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Richards, M

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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